

DT Journal

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**Journal of Diagnostics and
Treatment of Oral and
Maxillofacial Pathology**



Editors
Oleksii Tymofieiev • Rui Fernandes
(Kyiv, Ukraine • Jacksonville, FL, USA)



Official Journal of the
Ukrainian Association for
Maxillofacial and Oral Surgeons

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TANTUM VERDE®

QUICK RELIEF FROM PAIN
AND INFLAMMATION IN THE
MOUTH AND THROAT¹

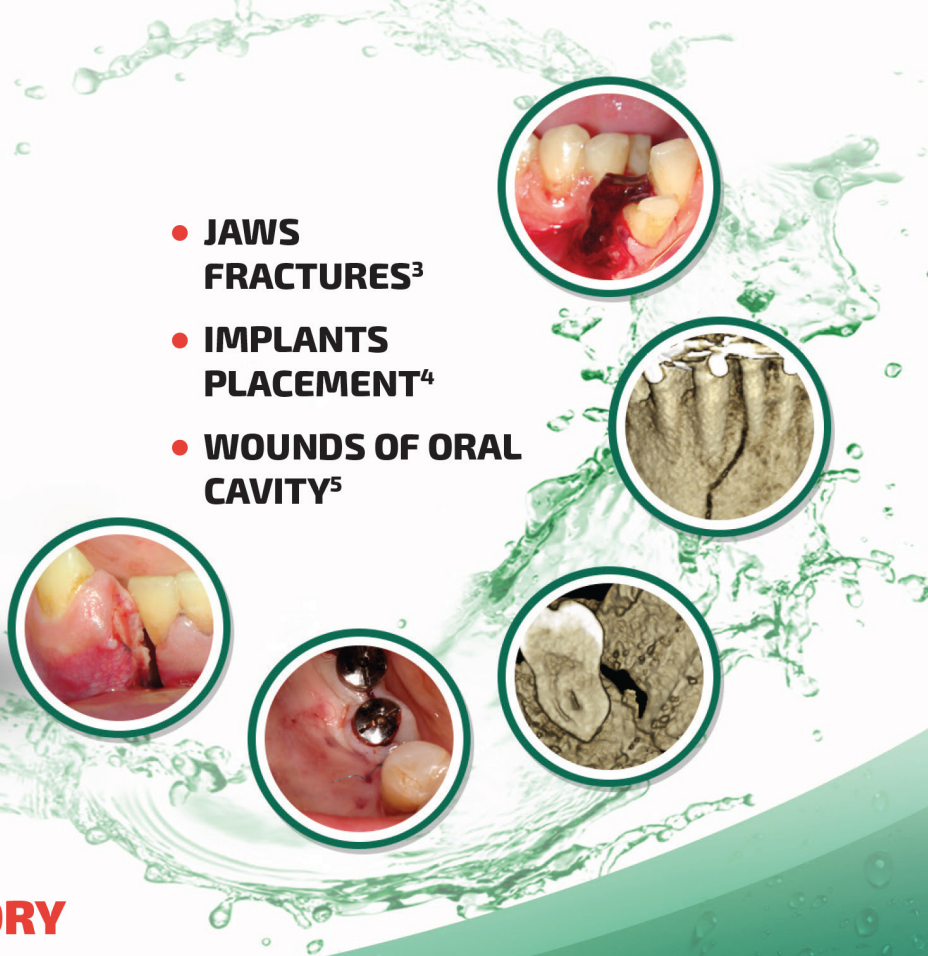
**AN INTEGRAL COMPONENT OF THE TREATMENT
OF PAIN AND INFLAMMATION IN THE ORAL CAVITY
IN 60 COUNTRIES WORLDWIDE!²**



Reg. № UA/3920/01/01

**LOCAL ANESTHETIC
AND ANTI-INFLAMMATORY
EFFECT¹**

- **JAWS FRACTURES³**
- **IMPLANTS PLACEMENT⁴**
- **WOUNDS OF ORAL CAVITY⁵**



SUMMARY OF PRODUCT CHARACTERISTICS

NAME OF THE MEDICINAL PRODUCT. Tantum Verde 0.15% mouthwash. **QUALITATIVE AND QUANTITATIVE COMPOSITION.** Each 100 ml contains: active ingredient: benzydamine hydrochloride 0.15 g (equivalent to 0.134 g of benzydamine). **Therapeutic indications.** Treatment of symptoms such as irritation/inflammation including those associated with pain in the oropharyngeal cavity (e.g. gingivitis, stomatitis and pharyngitis), including those resulting from conservative or extractive dental therapy. **Posology and method of administration.** Pour 15 ml of Tantum Verde mouthwash into the measuring cup, 2-3 times per day, using it either at full concentration or diluted. If diluted, add 15 ml of water to the graduated cup. Do not exceed the recommended dosage. **Contraindications.** Hypersensitivity to benzydamine or to any of the excipient. **PHARMACOLOGICAL PROPERTIES. Pharmacodynamic properties.** Pharmacotherapeutic group: Stomatologic drugs: other agents for local oral treatment, ATC code: A01AD02. Clinical studies demonstrate that benzydamine is effective in relieving suffering from localised irritation of the mouth and pharynx. In addition, benzydamine possesses a moderate local anaesthetic effect. **Pharmacokinetic properties. Absorption.** Absorption through the oropharyngeal mucosa is demonstrated by the presence of measurable quantities of benzydamine in human plasma. These levels are insufficient to produce systemic effects. **Distribution.** When applied locally, benzydamine has been shown to accumulate in inflamed tissues where it reaches effective concentrations because of its capacity to penetrate the epithelial lining.

Information about medicines. Information for health care professionals for use in professional activities.

1. Інструкція для медичного застосування лікарського засобу Тантум Верде®, розчин для ротової порожнини, РПН № UA/3920/01/01, затверджено Наказом Міністерства охорони здоров'я України № 636 від 01.10.2015.

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4, 4.5. Tymofiejew O.O. et al "Prevention of inflammatory complications upon surgeries in maxillofacial region". J Diagn Treat Oral Maxillofac Pathol. 2017;1:105-12.

Clinical and CT images are courtesy of: Ievgen Fesenko (Department of Oral & Maxillofacial Surgery, PHEI "Kyiv Medical University", Kyiv, Ukraine), Oleg Mastakov ("SCIEDECE—Scientific Center of Dentistry & Ultrasound Surgery" Kyiv, Ukraine)



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About the Journal: Aims and Scope

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Official Title

Journal of Diagnostics and Treatment of Oral and Maxillofacial Pathology

Standard Abbreviation: ISO 4

J. Diagn. Treat. Oral Maxillofac. Pathol.

Acronym

JDTOMP

International Standard Serial Number (ISSN)

Electronic ISSN 2522-1965

Aims & Scope

This is a monthly peer-reviewed oral and maxillofacial surgery journal focused on: Microvascular and jaw reconstructive surgery, dental implants, salivary gland tumors/diseases, TMJ lesions, virtual surgical planning, implementation of ultrasonography into the practice of oral and maxillofacial surgeons.

Editorial Board (EB) Composition

- EB shows significant geographic diversity representing 29 opinion leaders from 13 countries: Brazil, Canada, Colombia, Greece, Hong Kong (SAR, China), India, Israel, Italy, Slovak Republic, Spain, Ukraine, United Arab Emirates, and United States.
- The majority of the EB Members have a discernible publication history in Scopus, Web of Science, and journals with a high impact factor.
- The publication records of all EB members are consistent with the stated scope and published content of the journal.
- The journal has several full-time professional editors.
- Gender distribution of the editors: 10.34% women, 89.65% men, 0% non-binary/other, and 0% prefer not to disclose.

Frequency

12 print/online issues a year (from January 2020)

Publication History

2017: 4 issues a year

2018: 4 issues a year

2019: 10 issues a year

From 2020: 12 issues a year

Publishing Model

Journal of Diagnostics and Treatment of Oral and Maxillofacial Pathology is a fully open access and peer-reviewed publication.

Type of Peer Review

The journal employs “double blind” reviewing.

Article Publishing Charge (APC)

The APC in this journal is 100 USD and 50 USD (excluding taxes) depending on the article’s type. Details at website: dtjournal.org.

13 Types of Articles Currently Published by the Journal

Editorials/Guest Editorials/Post Scriptum Editorials, Images, Case Reports/Case Series, Original Articles, Review Articles, Discussions, Paper Scans (*synonyms*: Review of Articles, Literature Scan), Book Scans (*synonym*: Book Reviews), Letters to the Editor (*synonym*: Letters), and Viewpoints.

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2. Private Higher Educational Establishment “Kyiv Medical University.”
3. OMF Publishing, Limited Liability Company.

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Ukrainian Association for Maxillofacial and Oral Surgeons

Ukrainian Association for Maxillofacial and Oral Surgeons (UAMOS)

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TANTUM VERDE®

INFORMATION LEAFLET

for the medicinal product

Composition:

active substance: benzydamine hydrochloride;
100 mL of solution contain benzydamine hydrochloride 0.15 g;

excipients: ethanol 96%, glycerol, methyl parahydroxybenzoate (E 218), flavor (menthol), saccharin, sodium hydrocarbonate, Polysorbate 20, Quinoline Yellow (E 104), Patent Blue V (E 131), purified water.

Dosage form. Oromucosal solution.

Basic physical and chemical properties: a clear green liquid with a typical mint flavor.

Pharmacotherapeutic group. Dental preparations. Other agents for local oral treatment.

ATC code: A01A D02.

Pharmacological properties.

Pharmacodynamics.

Benzydamine is a non-steroidal anti-inflammatory drug (NSAID) with analgesic and antiexudative properties.

Clinical studies have shown that benzydamine is effective in the relief of symptoms accompanying localized irritation conditions of the oral cavity and pharynx. Moreover, benzydamine has anti-inflammatory and local analgesic properties, and also exerts a local anesthetic effect on the oral mucosa.

Pharmacokinetics.

Absorption through the oral and pharyngeal mucosa has been proven by the presence of measurable quantities of benzydamine in human plasma. However, they are insufficient to produce any systemic pharmacological effect. The excretion occurs mainly in urine, mostly as inactive metabolites or conjugated compounds.

When applied locally, benzydamine has been shown to cumulate in inflamed tissues in an effective concentration

due to its ability to permeate through the mucous membrane.

Clinical particulars.

Indications.

Symptomatic treatment of oropharyngeal irritation and inflammation; to relieve pain caused by gingivitis, stomatitis, pharyngitis; in dentistry after tooth extraction or as a preventive measure.

Contraindications.

Hypersensitivity to the active substance or to any other ingredients of the product.

Interaction with other medicinal products and other types of interaction.

No drug interaction studies have been performed.

Warnings and precautions.

If sensitivity develops with long-term use, the treatment should be discontinued and a doctor should be consulted to get appropriate treatment.

In some patients, buccal/pharyngeal ulceration may be caused by severe pathological processes. Therefore, the patients, whose symptoms worsen or do not improve within 3 days or who appear feverish or develop other symptoms, should seek advice of a physician or a dentist, as appropriate.

Benzydamine is not recommended for use in patients hypersensitive to acetylsalicylic acid or other non-steroidal anti-inflammatory drugs (NSAIDs).

The product can trigger bronchospasm in patients suffering from or with a history of asthma. Such patients should be warned of this.

For athletes: the use of medicinal products containing ethyl alcohol might result in positive antidoping tests considering the limits established by some sports federations.

Use during pregnancy or breast-feeding

No adequate data are currently available on the use of benzydamine in pregnant and breastfeeding women. Excretion of the product into breast milk has not been studied. The findings of animal studies are insufficient to make any conclusions about the effects of this product during pregnancy and lactation.

The potential risk for humans is unknown.

TANTUM VERDE should not be used during pregnancy or breast-feeding.

Effects on reaction time when driving or using machines

When used in recommended doses, the product does not produce any effect on the ability to drive and operate machinery.

Method of administration and doses.

Pour 15 mL of TANTUM VERDE solution from the bottle into the measuring cup and gargle with undiluted or diluted product (15 mL of the measured solution can be diluted with 15 mL of water). Gargle 2 or 3 times daily. Do not exceed the recommended dose.

Children.

The product should not be used in children under 12 years due to a possibility of ingestion of the solution when gargling.

Overdosage.

No overdose has been reported with benzydamine when used locally. However, it is known that benzydamine, when ingested in high doses (hundreds times higher than those possible with this dosage form), especially in children, can cause agitation, convulsions, tremor, nausea, increased sweating, ataxia, and vomiting. Such acute overdose requires immediate gastric lavage, treatment of fluid/salt imbalance, symptomatic treatment, and adequate hydration.

Adverse reactions.

Within each frequency group, the undesirable effects are presented in order of their decreasing seriousness.

Adverse reactions are classified according to their frequency: very common ($\geq 1/10$); common ($\geq 1/100$ to $<1/10$); uncommon ($\geq 1/1,000$ to $<1/100$); rare ($\geq 1/10,000$ to $<1/1,000$); very rare ($<1/10,000$); frequency unknown (cannot be estimated from the available data).

Gastrointestinal disorders: rare – burning mouth, dry mouth; *unknown* – oral hypesthesia, nausea, vomiting, tongue edema and discoloration, dysgeusia.

Immune system disorders: rare – hypersensitivity reaction, *unknown* – anaphylactic reaction.

Respiratory, thoracic and mediastinal disorders: very rare – laryngospasm; *unknown* – bronchospasm.

Skin and subcutaneous tissue disorders: uncommon – photosensitivity; very rare – angioedema; *unknown* – rash, pruritus, urticaria.

Nervous system disorders: *unknown* – dizziness, headache.

TANTUM VERDE contains methyl parahydroxybenzoate, which can cause allergic reactions (including delayed-type reactions).

Shelf life. 4 years.

Storage conditions.

Do not store above 25°C. Keep out of reach of children.

Packaging.

120 mL of solution in a bottle with a measuring cup; 1 bottle per cardboard box.

Dispensing category.

Over-the-counter medicinal product.

Manufacturer.

Aziende Chimiche Riunite Angelini Francesco A.C.R.A.F. S.p.A., Italy.

Location of the manufacturer and its business address.
Via Vecchia del Pinocchio, 22 – 60100 Ancona (AN), Italy.

Date of the last revision of the text.

September 26, 2018.

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Ministry of Health of Ukraine

No. 636 dated 01.10.2015

Registration Certificate

No. UA/3920/01/01

Our Supporters

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FIGURE. Evangelos G. Kilipiris, MD, DMD from the National Institute of Children's Diseases and Faculty of Medicine at Comenius University, Bratislava, Slovak Republic. A kind support of Dr. Kilipiris during the 5 years at the position of Director, Journal Development Department helped our journal to move forward and to evolve. An honorary plaque was presented to him on behalf of the Chief Editor with words "To a Founding Director, Author of Multiple Articles and Reviews, Great Thanks and Appreciation." Photo was taken on November 23, 2021.

Content

of the Volume 6 • Issue 4 • April 2022

	A1	Publisher & Editorial Office Information
	A2	Editorial Board
	A5	Our Supporters
	A6	Content, Courtesy, & Erratum
BUSINESS: EDITORIAL	60	War and Post-War Zones: A Deficit of Staff Members in the Private Practices Ivan V. Nagorniak & Nataliia M. Koba
IMAGES	63	Severe Self-Inflicted Gunshot Wound of the Face Vasyl A. Rybak
IMAGES	65	Gunshot Fracture of the Mandible Tetiana O. Shamova & Viacheslav P. Blyzniuk
IMAGES	67	Rubber Bullet-Induced Wound of the Cheek Ievgen I. Fesenko

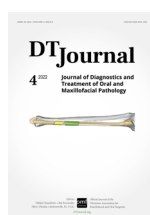


COURTESY

Journal's cover image (virtual surgical planning for a segmental mandibular reconstruction with fibula transplant) is courtesy of Rui P. Fernandes, MD, DMD, FACS, FRCS.

Image was taken from the article: Fernandes RP, Quimby A, Salman S. Comprehensive reconstruction of mandibular defects with free fibula flaps and endosseous implants. *J Diagn Treat Oral Maxillofac Pathol* 2017;1(1):6–10.

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BUSINESS: EDITORIAL

Ivan V. Nagorniak, MSc, PhD, Section Editor

War and Post-War Zones: A Deficit of Staff Members in the Private Practices

Ivan V. Nagorniak^{a,*} & Nataliia M. Koba^b

It is necessary to understand that we have a certain framework, which is not set by us. It is that we are a country that, whether we like it or not, will live in a constant threat of military conflict with our northern neighbor, which could start hostilities at any time, even after the peace is signed. We must turn the country into a fortress. This is a completely different philosophy, a different view of the economy and the content of our social relations within the country.¹

57th day of full-scale Russian war against Ukraine
(April 21, 2022)

—Danylo O. **Hetmantsev**

Chairman of the Committee of the Verkhovna Rada of Ukraine on Finance, Tax and Customs Policy, Doctor of Law Sciences, Professor

The war on European continent continues... 57 days of Russian invasion with tanks, fighters, combat helicopters, warships, missiles attacks but also a heroic defense of Ukrainian army and nation completely changed the work of many private practices in Ukraine.^{2,3}

Deficit of staff members in a war and post-war regions has been developed due to the two main reasons (1) temporary/permanent change of

residence of clinic staff from the eastern, southern and northern regions of Ukraine to the central and western regions and (2) departure/evacuation abroad for temporary/permanent residence.

More than 5 million people have left Ukraine for almost two months of Russian full-scale invasion.⁴ The majority (90 percent)⁴ of those people are women and children; among them a significant number of dentists, nurses, and clinic administrators can be noted. Female orthodontists (i.e., doctor-stomatologist-orthodontists), pediatric dentists (i.e., pediatric doctor-stomatologists), oral surgeons (i.e., doctor-stomatologist-surgeons), interns, students of dental faculties are those health workers who have been evacuated from Kyiv during the last two months according to our data. Also, among the evacuated persons of Kyiv's clinics are nursemaids, nurses, and administrators.

We can state with assurance that gender will be used as a basic guideline for the present and future hiring for the clinic in the war zones (e.g., Kyiv city and region, Chernihiv region, Sumy region, Zhytomyr region, etc.)⁵. This is evidenced by the fact that male employees of the military age (18-60-year-

Kyiv, Ukraine

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old men)⁶ are the subject to a possible mobilization in the army and do not have the opportunity to leave the country during the acting martial law.

It is an opinion of military experts and political scientists that the war in various forms and phases may last till the end of 2022.⁷ In our opinion, among the criteria for employment in private practice in the nearest future may be (1) gender of the employee (preferentially males or females who are not afraid to live and to work in a war zone), (2) apartments proximity to the clinic, (3) car or motorcycle owners. At the same time the employer's questionnaire should include such question as:

- Will you stay in the city where our clinic is located if the outskirts of the city are under fire? Yes or no.

So, we may anticipate the paradigm shift in the human resources policy of Ukrainian private practices at the nearest year or later.

Walton-Roberts and colleagues (2017) indicated on important concern of migration of health workers—deskilling and loss of value through global circulation.⁷ It's true, the dental specialist who evacuate/migrate to other country lose some life period (months or years) for foreign language learning, adaptation, nostrification of the diploma, job offer search, etc. Moreover, we know multiple cases when Ukrainian dentist who migrated to other country due to the family reasons accepted a possibility to work as a dental assistant for a long period of time (years or even decades).

At the same time, inspection of *return migration* data from India showed that only 1.9 percent of the nurse respondents and less than 1 percent of the other health professions were return migrants.⁸ Of course, in case of the Ukrainian *forced evacuation* due to the war it is not an emigration. Some part of those 5 million people⁴ moved to the European Union countries, United Kingdom, and even United States or Canada with a hope to return homes and businesses after end of the war. Or even they start to return to home cities where hostilities have stopped.

Thus, we are faced not only with the loss of personnel for private practices, but also with brain drain for the society and economy in general.⁹

In summary, in constant threat of military conflict the practice owners in Ukraine are to rethink the human resources policy with a goal of saving the

work medical institution, providing diagnostic and treatment services, and making own contribution to the economic stability of the country.

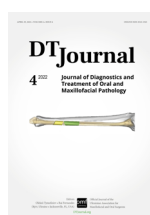
So, the shareholders of the private practices in Ukraine should learn how to manage a wartime dentistry workforce challenges. And those practice owners who will be successful in those new skills will preserve the business.

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IMAGES

Camilo Mosquera, DDS, *Editor*

Severe Self-Inflicted Gunshot Wound of the Face

Vasyl A. Rybak



A 26-year-old male was transported to the hospital with a severe self-inflicted gunshot wound of the middle and lower face (Panel A) due to the suicide attempt. Three-dimensional computed tomography (CT) showed multiple site comminuted fracture of the facial skeleton including maxilla, mandible, right zygomatic, ethmoid, and nasal bones (Panel B). Also, the sockets of multiple avulsed teeth were

noted. The patient was transported from the region several days after the injury. Due to the osseous and soft tissue loss, this type of gunshot wounds typically poses a considerable challenge to the oral and maxillofacial and plastic surgeons.² Acute management in such cases includes resuscitative and life-saving measures.¹ Timing of each surgical procedure should be chosen according to the patient

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condition, extent of the injury, and international recommendations.¹ Operative principles include: (1) general considerations (all reconstructive options are to be taking into account, moreover, the volume of bone and soft tissue loss, functional and aesthetic purposes should be analyzed and planned very precisely), (2) skeletal fixation, (3) bone grafts, (4) soft tissue coverage, and even (5) a facial transplantation in some cases.¹ In our case, the right eye *enucleation* (removal of the entire globe with all intraocular contents, while preserving orbital/periorbital structures) was done due to the severely ruptured globe.^{2,3} Typical indications for enucleation are severe eye trauma and blind, intraocular tumors, painful, and cosmetically disfiguring eyes.⁴ In case of *evisceration* the intraocular contents are removed from an intact sclera, extraocular muscle attachments and the orbital adnexa are preserved, with placement of an implant within the scleral shell with a purpose to retain orbital volume.³ Common indications for enucleation are unresponsive endophthalmitis and for improvement of cosmesis in a blind eye. The most common indication for orbital *exenteration* (removal of the globe and all orbital contents, including muscles, fat, optic nerve, lacrimal gland, nerves, periorbital bone, upper and lower lid

complexes) is malignancy.⁵ ■ DTJournal.org

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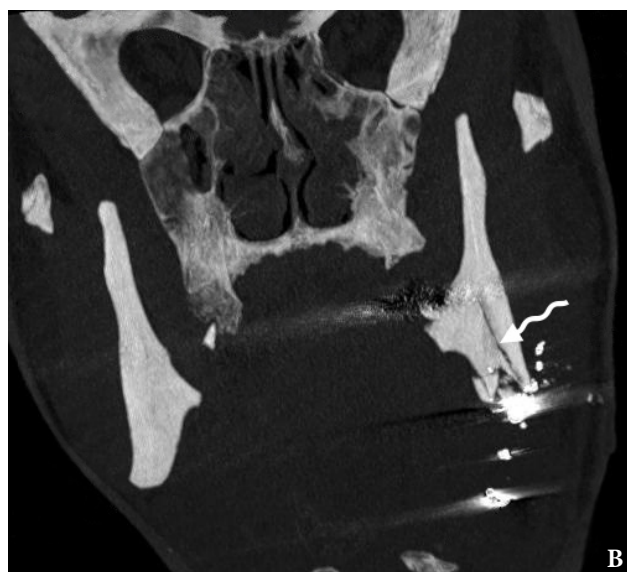
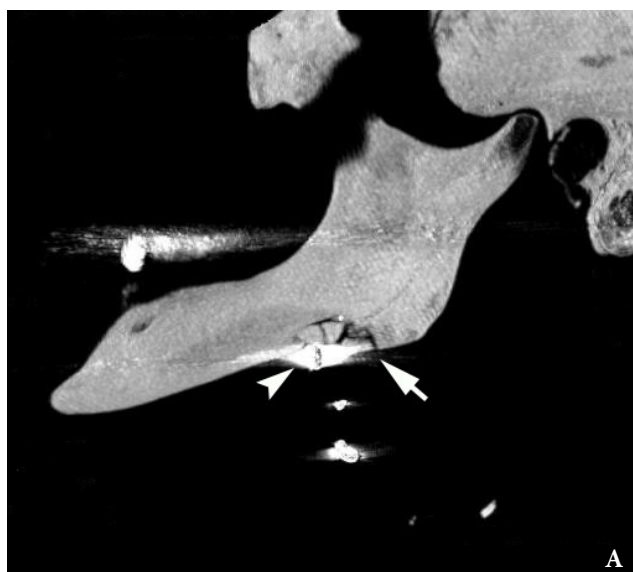


IMAGES

Camilo Mosquera, DDS, *Editor*

Gunshot Fracture of the Mandible

Tetiana O. Shamova^a & Viacheslav P. Blyzniuk^b



A 51-year-old male was transferred to the hospital with a gunshot injury of the lower face. Three-dimensional scan of the multislice computed tomography (MSCT) revealed a severely comminuted fracture (Panel A: *arrow*) of the left mandibular body at the inferior margin area (what corresponds to the *gunshot marginal mandible*

*fracture diagnosis among 12 variants of gunshot mandibular fractures)*¹. Also, the implantation of multiple different shape radiopaque foreign bodies (*arrowhead*) was also visualized along with metal artifacts. A rotated coronal scan of the MSCT (Panel B) showed linear continuation (*waved arrow*) of the fracture to the ramus (visualized as incomplete

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fracture)², partially splitting it into medial and lateral fragments. Although the incomplete fractures are more common for the pediatric jaw fractures, in this gunshot injury the MSCT data also indicates an incomplete fracture. In this particular case, it was a gunshot compound fracture (also known as open fracture) of the mandible.³ Intermaxillary fixation (also known as maxilla-mandibular⁴ or maxillomandibular fixation⁵) was performed for 3 weeks without open intervention in the mandible margin area. Antibiotic therapy (Ceftriaxone 1.0 g 2 times daily applying intramuscular administration) was done during 7 days after trauma. ■ DTJournal.org

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IMAGES

Camilo Mosquera, DDS, *Editor*

Rubber Bullet-Induced Wound of the Cheek

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A 23-year-old male was directed to the Kyiv Regional Clinical Hospital on January 19, 2014 due to severe left cheek injury (Panel A). The patient arrived at ~09:40 p.m. conscious and with a gauze bandage on his left cheek soaked in blood. Oral mucosa was not damaged. Crowns of the teeth were uninjured. The margins of the wound looked lacerated but vital,

without characteristic powder burn. A skin and subcutaneous tissue defect measured $\sim 1.5 \times 1.5$ cm in size was noted. The initial wound debridement was performed under the local anesthesia. The depth of the wound reached ~ 0.5 cm with no evidence of wound canal. No foreign bodies were noted. Part of Sypsur-Derm® (Paul Hartmann, Germany), a soft

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spongy bandage, was individualized and sutured for temporary closure of skin defect. The antibiotic was prescribed and after two weeks the patient directed to plastic surgeon. According to media reports dated January 19, 2014, the employees of the Ministry of Internal Affairs of Ukraine (i.e., militia—the name of police in January 2014) have applied rubber bullets against protesters on Hrushevskoho Street, Kyiv in January 19, 2014.¹ In that time, militia were subordinated to Zakharchenko Minister of Internal Affairs and President Yanukovich, both had escaped to Russia due to the multiple shootings of protesters on Instytutska Street, Kyiv. The patient told the doctor that injury was obtained on Hrushevskoho Street approximately one hour before. Further investigations of journalists revealed that the incriminated weapon was Fort-500.³ Fort-500 is a series of 12/76 mm pump-action rifles manufactured by the Research and Production Company “Fort” of the Ministry of Internal Affairs of Ukraine.³ Panel B demonstrates the appearance of “Teren-12P” rubber bullets (in gray color) without and in the chambers (i.e., shells or cartridges) (in white color). Data showed that such bullets were used for the Fort-500 at January 19.² Characteristics of the “Teren-12P” ammunition³:

- Caliber: 12.
- Length: 65 ± 1.8 mm.
- Diameter: 21.97... 22.45 mm.
- Bullet mass: 8.4 ± 0.5 g.
- Bullet flight speed 3.5 m from the muzzle: 140 ± 20 m/s.

“Teren-12P” ammunition with an elastic bullet of shock-traumatic action are designed and

manufactured for firing from smoothbore rifles of 12th caliber with a chamber length of 70 mm.³ Such weapon and bullets belong to less-lethal weapon⁴ and are used in protest cases by some national polices.⁵ ■ DTJournal.org

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